

only; *b*, echinating spicule, spinous; *c*, equianchorate flesh-spicule, navicular, much bent upon itself.

Fig. 44. *Reniera fibulata*, Schmidt: *a*, skeleton-spicule of one kind only; *b*, flesh-spicule, bihamate.

Fig. 45. *Cliona abyssorum*, skeleton-spicules of two forms: *a*, large, pin-like; *b*, smaller, acerate; *c*, flesh-spicule, spiro-sinuuous. See more magnified view of the latter in fig. 33, Pl. XIV.

Fig. 46. *Gummina Wallichii*: *a*, central canal; *b*, rows of tubercles; *c*, more magnified view of tubercle.

N.B. In the upper half, for convenience, the tubercles are omitted.

Fig. 47. *Forcepia colonensis*. Scale 1-12th to 1-6000th inch.

N.B. On one side the spines are partly omitted for convenience. This figure is intended for comparison with fig. 32, *a*, Pl. XIV.; but it should be remembered that it is drawn to a much larger scale, not being half so long as fig. 32 in reality, although stouter and more markedly spined.

Fig. 48. *Corticium Kittonii*: *a*, three-branched form; *b*, four-branched (here the spines are again omitted for convenience); *c*, two-branched form.

XXXII.—*Description of a new Species of Lizard of the Genus Celestus*. By A. W. E. O'SHAUGHNESSY, Assistant in the Natural-History Departments of the British Museum.

*Celestus bilobatus*, sp. n.

Body slender, elongate, rounded; limbs short, the anterior not reaching to the eye, the posterior not quite to the middle of the side. Ear very small, almost closed. Head obtuse; muzzle rounded, shorter than the interorbital width of the head. Supranasals two pairs; internasal large, broad; frontal broad, oblong; small interparietal, smaller fronto-parietals, large parietals, and small occipital. A small scale or two scales wedged in between parietals and supraorbitals. Five supraorbitals, the fifth triangular, entirely on the flattened upper surface of the head and abutting on the internasal. Two narrow plates, one elongate, coming forward from the line of the supraoculars, are wedged in between the fifth supraorbital and internasal and the several postnasal or lateral plates, of which there are two postnasals proper, one over the other, and two consecutive loreals. Rostral very short and very wide. Supralabials eight. Teeth conspicuously bilobate. Scales in forty-one longitudinal series, twelve-to-fourteen-keeled, without prominent central keel; eighty-six scales in the median ventral series; the preanal scales much larger, in three rows, about twelve. All the scales rounded. Tail much longer than body and head.

Colour: sides with several widely placed vertical brown bands or patches, within which are one or two conspicuous white spots; a bluish-white stripe before the axilla.

One specimen in the collection of the British Museum, from Costa Rica, obtained of Mr. Higgins.

XXXIII.—*On the Invertebrate Marine Fauna and Fishes of St. Andrews.* By W. C. M'INTOSH.

[Continued from p. 207.]

Series II. ARTHROPODA.

Class CRUSTACEA.

The sessile-eyed Crustacea of St. Andrews are tolerably numerous both in species and individuals. Between tide-marks the most conspicuous (as usual) are the swarms of *Talitrus locusta* which speedily reduce dead fish and other animals to skeletons at high-water mark and considerably beyond it, and the multitudes of *Gammarus locusta* and *Amphithoë podoceroïdes* under stones amongst the rocks. The *Podocerides*, *Pherusa bicuspis*, *Calliopius grandoculis*, and *Caprella tuberculata* are plentiful in the rock-pools, and *Corophium grossipes* in the brackish pools near the estuary of the Eden. *Janira maculosa* abounds both in the tidal region and in deep water, while *Jæra Nordmanni* occurs in numbers under stones near high-water mark. In the laminarian region one of the most abundant, perhaps, is *Atylus Swammerdami*, which congregates in swarms on the loose seaweeds. *Siphonæcetus typicus* is common amongst shell-gravel, and *Eurydice pulchra* on the surface of the sea as well as in rock-pools in autumn. Many of the rarer forms occur in the deeper water in considerable numbers; but the distribution of the group in British seas is still involved in considerable obscurity; and at present it will suffice to observe that two of the most plentiful in this region are *Ampelisca Belliana*, Bate, and the new *Calliopius bidentatus*, Norman. The former is likewise common on the beach after storms and in the stomachs of fishes; and the latter ranges to the laminarian zone.

Compared with the Zetlandic area, the absence at St. Andrews of such forms as *Acanthonotus Owenii*, *Dexamine vedlomensis*, *Cymodocea truncata*, and *Spheroma Prideauxia-*